Done

Inv 38272
approved.

PROJECT ID: PMN06011997

SAMPLE ID: ~~NO SAMPLE ID~~ PN 130

DESCRIPTOR: PESTICIDE
MONITORING NETWORK

IDEM

DK 12129 & DK12037 - DK 12040

Environmental
Health Laboratories

110 South Hill Street
South Bend, Indiana 46617
(219)233-4777
(800)332-4345
(219)233-8207 FAX

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

INDIANAPOLIS

OFFICE MEMORANDUM

DATE: March 3, 1999

TO: Mike Yarling **THRU:** Rob Duncan

FROM: Mitt Denney

SUBJECT: Samples DK12129 and DK12037-DK12040

Sample Comments

I have reviewed the attached results and have determined that the results are acceptable for use. The results have been evaluated for the quality criteria contained in the Ground Water Quality Assurance Program Plan and BAA 97-044. Any qualifications for the acceptance of these results will be identified in the memorandum. This memorandum should remain attached to the original results.

Since multiple groups of sample number sets are submitted to the lab, QC discussions are grouped by the analytical run as presented in the report submitted by the lab. The sample numbers do not follow a consistent grouping across each of the methods performed.

QA/QC Samples

Enzyme Immunoassay

Enzyme immunoassay was utilized for screening chlorinated acids and carbamate class pesticides. 2,4-D and carbofuran are the target immunoassay compounds. EPA methods 515.1 (chlorinated acids) and 531.1 (carbamates) were used to analyze ten percent of samples taken and any sample with a positive immunoassay response.

Immunoassay results are reported with concentrations; however, concentration data is suitable only for qualitative purposes. Concentration data is not evaluated for QC suitability, due to the variable nature of the results.

2,4-D

QC samples correctly indicated the presence or absence of 2,4-D. 2,4-D immunoassay sample results are acceptable for qualitative evaluation.

Carbofuran

QC samples correctly indicated the presence or absence of carbofuran. Carbofuran immunoassay sample results are acceptable for qualitative evaluation.

EPA Methods

Chlorinated Acids (515.1)

Sample DK12129 was analyzed as a ten percent check sample. QC data were within acceptable parameters. Chlorinated acid data is acceptable for quantitative evaluation.

Carbamates (531.1)

Sample DK12129 was analyzed as a ten percent check sample. QC data were within acceptable parameters. Carbamate data is acceptable for quantitative evaluation.

General Pesticides (525.2)

The peak Gaussian factor was not within specifications for bromacil. The balance of QC were within acceptable parameters; therefore, bromacil data is acceptable for quantitative evaluation. Metribuzin, prometon, and simazine were low biased in the LFB. Cyanazine was low biased in the second CCC (C-1-18B). Surrogate 4 (late eluting) was high biased for sample DK12040. Sample DK12040 data is acceptable since the other surrogates, internal standards, LMB, CCC, and LFB were within acceptable parameters, with the exception of compounds listed below. LFB data for metribuzin, prometon, and simazine and CCC data (C-1-18B) for cyanazine were low biased due to degradation effects from acidified preservation; hence, data for these compounds are acceptable for qualitative evaluation only.

All other general pesticide QC data were within acceptable limits; therefore the data are acceptable for quantitative evaluation.

General Pesticides, Comments

Bench testing has demonstrated an attenuation of the concentration of cyanazine, diazinon, fenamiphos, metribuzin, prometon, and simazine with hydrochloric acid (HCL) preservation. This attenuation becomes severe within a short period of time. This will affect the determination of concentration; however, because of the sensitivity of the ion trap mass spectrometer, the detection of the presence of these parameters will not be affected for original concentrations on the order of magnitude of the maximum contaminant levels (MCL). Reviews are under way to examine data at the instrumental detection limit to see if there were any indications of these compounds. Testing of unpreserved sample duplicates (samples taken in July 1998) have not indicated any detection of a pesticide, that was not detected in a preserved sample.

Environmental Health Laboratories

110 S. Hill Street
South Bend, IN 46617-2702
(219) 233-4777
(219) 233-3272
FAX (219) 233-8207

LABORATORY REPORT

Client: IDEM
Attn: Mitt Denney
Groundwater Section
100 North Senate Avenue
P. O. Box 6015
Indianapolis, IN 46206-6015

Report #: 346614-38

Priority: Standard Written

Status: Final

Project: DK 12129 & DK 12037 - DK 12040

Samples Submitted: Five groundwater samples

Copies to: None

Collected: 08/11 to 08/12/98 By: Client Received: 08/19/98

REPORT SUMMARY

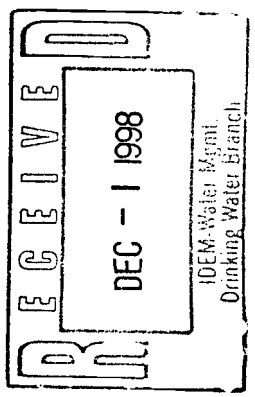
Five groundwater samples were submitted for analysis of Task 4A, 2,4-D and Carbofuran (Enzyme Immunoassay), Pesticides (Method 525.2), Chlorinated acids (Method 515.1), and Carbamates (Method 531.1).

Note: Sample containers were provided by the client.

The following is a summary of the results by sample. Any compounds that are not part of the requested parameter list are indicated by an asterisk(*).

2,4-D Enzyme Immunoassay

None of the quality control samples in the analytical run were outside the limits specified in the method.



DK12129	2,4-D was not detected in the sample submitted for analysis.
DK12037	2,4-D was not detected in the sample submitted for analysis.
DK12038	2,4-D was not detected in the sample submitted for analysis.
DK12039	2,4-D was not detected in the sample submitted for analysis.
DK12040	2,4-D was not detected in the sample submitted for analysis.

Carbofuran Enzyme Immunoassay

None of the quality control samples in the analytical run were outside the limits specified in the method.

DK12129	Carbofuran was not detected in the sample submitted for analysis.
DK12037	Carbofuran was not detected in the sample submitted for analysis.

Carbofuran Enzyme Immunoassay (Cont.)

DK12038 Carbofuran was not detected in the sample submitted for analysis.

DK12039 Carbofuran was not detected in the sample submitted for analysis.

DK12040 Carbofuran was not detected in the sample submitted for analysis.

EPA 525.2

Bromacil did not pass the PGF criteria in the LPC, but this data is acceptable based on bromacil recoveries in the LFB and CCCs. Metribuzin and prometon recoveries in the LFB and metribuzin and cyanazine recoveries in the LFM were low biased outside the acceptance limits of 70-130% recovery. These analytes are listed in Section 13.2 of EPA Method 525.2 as "Problem Compounds." Since the samples from IDEM are collected and stored under acidic conditions, low recoveries for cyanazine and prometon may be observed in the LFBs and LFMs due to degradation and or ionization as cited in paragraphs 13.2.5 and 13.2.8 of the method. Metribuzin has been found to breakthrough the extraction disk when co-extracted with other analytes. (Section 13.2.7). Simazine recovery was low biased in the LFB, but this data is acceptable based on simazine recoveries in the CCCs. Cyanazine recovery in the second CCC was low biased outside the acceptance limits due to active sites on the injector insert from previous injections. Therefore, these results in the samples are potentially low biased. One of four surrogate standard recoveries in sample DK 12040 was low biased outside the acceptance limits due to matrix interference. This data is acceptable based on the recoveries of the other three surrogate standards. None of the other quality control samples in the analytical run were outside the limits specified in the method.

DK12129 None of the method parameters were detected in the sample submitted for analysis.

DK12037 None of the method parameters were detected in the sample submitted for analysis.

DK12038 None of the method parameters were detected in the sample submitted for analysis.

DK12039 None of the method parameters were detected in the sample submitted for analysis.

DK12040 None of the method parameters were detected in the sample submitted for analysis.

EPA 515.1

None of the quality control samples in the analytical run were outside the limits specified in the method.

DK12129 None of the method parameters were detected in the sample submitted for analysis.

Client: IDEM

Report #: 346614-38

EPA 531.1

None of the quality control samples in the analytical run were outside the limits specified in the method.

DK12129 — None of the method parameters were detected in the sample submitted for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call us at (219) 233-4777.

REVIEWED BY: John E. George III DATE: 11/24/98.

FINALIZED BY: [signature] DATE: 11/25/98

Please see the back for instructions

Environmental Health Laboratories 110 S. Hill Street · South Bend, IN 46617 · Phone (219) 233-4777 · (800) 332-4345 ORDER # 33352

SHADED AREA FOR LAB USE ONLY

CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT/COMPANY ORDERING TEST	STATE OF SAMPLE ORIGIN	SAMPLER (Signature)	PWS ID#	PO#
IDEM				

EHL LAB#	COLLECTION DATE	COLLECTION TIME		SAMPLING SITE/LAB ID #	TEST NAME	SAMPLE REMARKS	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	CUSTODY SEAL
346614	8/11	1:00	A/P	DK 12129	525.2		2			
346615			A/P		515.1					
346616			A/P		531.1					
346617			A/P		2,4-D (Assay)		1			
346618			A/P		Carbofuran (Assay)		1			
346619	8/11	4:30	A/P	DK 12037	525.2		2			
346620			A/P		515.1					
346621			A/P		531.1					
346622			A/P		2,4-D (Assay)		1			
346623			A/P		Carbofuran (Assay)		1			
			A/P							
			A/P							
			A/P							

FIELD COMMENTS: CARRIER _____ AIRBILL NO. _____ COOLER NO. _____ DATE SHIPPED _____

IN House COC

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
			[signature]	8-19	0930

LAB COMMENTS All 515 & 531 (except 1 site) are invoiced unless needed for confirmation SS 8-20-98

SHIPPING CONDITIONS: (Check One) ☒ Iced ☐ Ambient

TEMPERATURE: _____ °C Lowest _____ °C Highest 5 °C Receipt

MATRIX CODES:

- **RW** = REAGENT WATER
- **DW** = DRINKING WATER
- **GW** = GROUNDWATER
- **SW** = SURFACE WATER
- **WW** = WASTEWATER
- **PW** = POOL WATER

TURN-AROUND-TIME (TAT) - SURCHARGES

SW = STANDARD (15 WORKING DAYS) WRITTEN	0%	**IV** = IMMEDIATE (72 HOURS) VERBAL	100%	**STAT** = LESS THAN 48 HOURS	Call
RV = RUSH (5 WORKING DAYS) VERBAL	50%	***IW*** = *IMMEDIATE (72 HOURS) WRITTEN*	125%		
RW = *RUSH (5 WORKING DAYS) WRITTEN*	75%	**SP** = WEEKEND, HOLIDAY	Call		

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional surcharges.

Environmental Health Laboratories 110 S. Hill Street · South Bend, IN 46617 · Phone (219) 233-4777 · (800) 332-4345

ORDER # _____

SHADED AREA FOR LAB USE ONLY

CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT/COMPANY ORDERING TEST	STATE OF SAMPLE ORIGIN	SAMPLER (Signature)	PWS ID#	PO#
IDEM				

EHL LAB#	COLLECTION DATE	COLLECTION TIME		SAMPLING SITE/LAB ID #	TEST NAME	SAMPLE REMARKS	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	CUSTODY SEAL
346624	8/12	0930	NP	DK 12038	525.2		2			
346625	↓	↓	NP	↓	515.1		↓			
346626	↓	↓	NP	↓	531.1		↓			
346627	↓	↓	NP	↓	2,4-D (Assay)		1			
346628	↓	↓	NP	↓	Carbofuran (Assay)		1			
346629	8/12	1100	NP	DK 12039	525.2		2			
346630	↓	↓	NP	↓	515.1		↓			
346631	↓	↓	NP	↓	531.1		↓			
346632	↓	↓	NP	↓	2,4-D (Assay)		1			
346633	↓	↓	NP	↓	Carbofuran (Assay)		1			
			NP							
			NP							
			NP							

FIELD COMMENTS: CARRIER _____ AIRBILL NO. _____ COOLER NO. _____ DATE SHIPPED _____

IN House COC

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME
				8-19-98	0930

LAB COMMENTS

SHIPPING CONDITIONS: (Check One) ☒ Iced ☐ Ambient

TEMPERATURE: _____ °C Lowest _____ °C Highest _____ °C Receipt

MATRIX CODES:

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- **SW** = SURFACE WATER
- **WW** = WASTEWATER
- **PW** = POOL WATER

TURN-AROUND-TIME (TAT) - SURCHARGES

SW = STANDARD (15 WORKING DAYS) WRITTEN	0%	**IV** = IMMEDIATE (72 HOURS) VERBAL	100%	**STAT** = LESS THAN 48 HOURS	Call
RV = RUSH (5 WORKING DAYS) VERBAL	50%	***IW*** = *IMMEDIATE (72 HOURS) WRITTEN*	125%		
RW = *RUSH (5 WORKING DAYS) WRITTEN*	75%	**SP** = WEEKEND, HOLIDAY	Call		

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional surcharges.

Environmental Health Laboratories 110 S. Hill Street · South Bend, IN 46617 · Phone (219) 233-4777 · (800) 332-4345

ORDER # _____

SHADED AREA FOR LAB USE ONLY

CHAIN OF CUSTODY RECORD

PAGE _____ OF _____

CLIENT/COMPANY ORDERING TEST	STATE OF SAMPLE ORIGIN	SAMPLER (Signature)	PWS ID#	PO#
IDEM				

EHL LAB#	COLLECTION DATE	COLLECTION TIME		SAMPLING SITE/LAB ID #	TEST NAME	SAMPLE REMARKS	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	CUSTODY SEAL
3460634	8/12	1355	NP	DK 12040	525.2		2			
3460635	↓	↓	NP	↓	515.1		↓			
3460636			NP		531.1					
3460637			NP		2,4-D (Assay)		1			
3460638			NP		Carbofuran (Assay) 8k		1			
			NP		525.2					
			NP		515.1					
			NP		531.1					
			NP		2,4-D (Assay)					
			NP		Carbofuran (Assay)					
			NP							
			NP							

FIELD COMMENTS: CARRIER _____ AIRBILL NO. _____ COOLER NO. _____ DATE SHIPPED _____

IN House COC

LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT.

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY: 8-19-98 0930	DATE	TIME

LAB COMMENTS

SHIPPING CONDITIONS: (Check One) ☒ Iced ☐ Ambient

TEMPERATURE: _____ °C Lowest _____ °C Highest _____ °C Receipt

MATRIX CODES:

- RW = REAGENT WATER
- DW = DRINKING WATER
- GW = GROUNDWATER
- SW = SURFACE WATER
- WW = WASTEWATER
- PW = POOL WATER

TURN-AROUND-TIME (TAT) - SURCHARGES

SW = STANDARD (15 WORKING DAYS) WRITTEN	**0%**	**IV** = IMMEDIATE (72 HOURS) VERBAL	**100%**	**STAT** = LESS THAN 48 HOURS	**Call**
RV = RUSH (5 WORKING DAYS) VERBAL	**50%**	***IW*** = *IMMEDIATE (72 HOURS) WRITTEN*	***125%***		
RW = *RUSH (5 WORKING DAYS) WRITTEN*	**75%**	**SP** = WEEKEND, HOLIDAY	**Call**		

Samples received unannounced with less than 48 hours holding time remaining may be subject to additional surcharges.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

☒ OWM ☐ OSHWM ☐ OER ☐ OAM

CHAIN OF CUSTODY

I certify that the sample(s) listed below was/were collected by me or in my presence. Date: 8 / 10 / 98

Signature: Michael Yaley Section: Ground Water

LAB NUMBER ASSIGNED	IDEM CONTROL NUMBER	CONSISTING OF THE INDICATED NUMBER OF BOTTLES												DATE AND TIME COLLECTED
		2000 ml P,N.M.	1000 ml P,N.M.	1000 ml G,N.M.	500 ml G,W.M.	40 ml VIAL	120 ml G,(B.O.)	500 ml P,N.M.	250 ml P,N.M.					
	DK 12129			2		4								8 / 11 / 98 1:00 AM/PM
	DK 12037			2		4								8 / 11 / 98 4:30 AM/PM
	DK 12038			2		4								8 / 12 / 98 9:30 AM/PM
	DK 12039			2		4								8 / 12 / 98 11:00 AM/PM
	DK 12040			2		4								8 / 12 / 98 1:35 AM/PM
														/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM
														/ / : AM/PM

P - Plastic G - Glass N.M. - Narrow Mouth W.M. - Wide Mouth B.O. - Bacti. Only

CARRIERS

Should samples be Iced? Y N

I certify that I received the above sample(s).

SIGNATURE	DATE AND TIME	SEALS INTACT		COMMENTS
RELINQUISHED BY: Michael Yaley	8 / 10 / 98	Y	(N)	5 wells
RECEIVED BY: [illegible] 8-19-98	0930 : AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			
RELINQUISHED BY:	/ /	Y	N	
RECEIVED BY:	: AM/PM			

LAB CUSTODIAN

I certify that I received the above sample(s) and is/are recorded in the official record book. The same sample(s) will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature: _____ Date: ___ / ___ / ___ Time: ___ : ___ AM/PM

Lab: _____ Address: _____

INDIANA DEPARTMENT of ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER MANAGEMENT
GROUND WATER SECTION

ASSIGNED LAB: EHL

Date Submitted:	8/18/98	**Sample Nos Submitted Today:**	DK12129 to DK 12129 DK12037 to DK12046
Project:	MONITORING NETWORK	**Assigned IDEM Sample Nos:**	~~DK11797 to DK11806~~ DK12030-DK12065
Matrix:	Ground Water	**Sampler:**	HAMILTON / VARLING

TASKS &/OR PARAMETERS TO DETERMINE

TASK	PARAMETER
4A	PESTICIDES
4A	CHLORINATED PESTICIDES
4A	CARBAMATES

TASK	PARAMETER

APPROXIMATE CONCENTRATIONS: 10ppm **REPORTING TIME REQUIRED: 30 DAYS**

Comments:

Please Send Report To:

Mitt Denney
IDEM
Shadeland, Ground Water Section
P.O. Box 6015
Indianapolis, IN 46206-6015

ENVIRONMENTAL HEALTH LABORATORIES

2,4-D ANALYSIS RESULT SHEET

Method: Enzyme Immunoassay - Qualitative
Run Date: 08/20/98 Run Time: 11:00
LOT # Standard 1: Not Used
Standard 2: 7J2564
Standard 3: Not Used
Control Solution: 7J2566
Diluent/Zero Solution: 7K2778

Analyst: NM
Project(s): IDEM / Pesticide Monitoring Network
Enzyme Conjugate: 8C1017
Stopping Solution: 7J2630
Washing Solution: 7L3052
Color Solution: 8B1156
Magnetic Particles: 8C1016

Instrument ID: B&L Spectronic 21
Run ID #: 14058
Standard Warmup Time:
Spectronic 21 Setting: 450
Curve Date: 07/08/98
Kit Lot : 8C1023
in use : 08/03/98

Seq Num	Lab ID #	Client	Sample Description		Sample Type	Sample Matrix	Absorbance (nm) Bx	Bx x 100 / Bo	Calcd. PPB	Final Result	% Rec	Q
1			Diluent/Zero	0.0 ug/L	LMB	RW	1.072					
2			Diluent/Zero	0.0 ug/L	LMB	RW	1.078					
3			Standard 2 (1/10 diln)	1.0 ug/L	ICS	RW	0.976	90.8	0.8	Present	80	
4			Standard 2 (1/10 diln)	1.0 ug/L	ICS	RW	0.997	92.7	0.7	Present	70	
5			Control	3.5 ug/L	QCS	RW	0.830	77.2	2.8	Present	80	
6	346617	IDEM	DK12129		FS	GW	1.263	117.5	< 1.0	Absent		
7	346622	IDEM	DK12037		FS	GW	1.218	113.3	< 1.0	Absent		
8	346627	IDEM	DK12038		FS	GW	1.211	112.7	< 1.0	Absent		
9	346632	IDEM	DK12039		FS	GW	1.224	113.9	< 1.0	Absent		
10	346632	IDEM	DK12039 Matrix Spike @ 7.0 ug/L		MS	GW	0.771	71.7	4.8	Present	69	
11	346632	IDEM	DK12039 Matrix Spike Duplicate @ 7.0 ug/L		MS	GW	0.739	68.7	5.8	Present	83	
12	346637	IDEM	DK12040		FS	GW	1.319	122.7	< 1.0	Absent		
13			Diluent/Zero	0.0 ug/L	LMB	RW	1.098	102.1	< 1.0	Absent		
14			Standard 2 (1/10 diln)	1.0 ug/L	CCC	RW	1.002	93.2	0.7	Present	70	
15												
16												
17												
18												
19												
20												
21												
22												

Comments:

ENVIRONMENTAL HEALTH LABORATORIES

CARBOFURAN ANALYSIS RESULT SHEET

Method: Enzyme Immunoassay - Qualitative
Run Date: 08/25/98 Run Time: 09:00
LOT # Standard 1: Not Used
Standard 2: 7D1335
Standard 3: 7D1336
Control Solution: 7D1337
Diluent/Zero Solution: 7C1276

Analyst: NM
Project(s): IDEM / Pesticide Monitoring Network
Enzyme Conjugate: 7G2110
Stopping Solution: 7G2034
Washing Solution: 7C1229a
Color Solution: 7G2117
Magnetic Particles: 7G2111

Instrument ID: B&L Spectronic 21
Run ID #: 14186
Standard Warmup Time:
Spectronic 21 Setting: 450
Curve Date: 05/20/98
Kit Lot : 7G2126
in use : 08/03/98

Seq Num	Lab ID #	Client	Sample Description		Sample Type	Matrix	Absorbance (nm) Bx	Bx x 100 / Bo	Calcd. PPB	Final Result	% Rec	Q
1			Diluent/Zero	0.0 ug/L	LMB	RW	0.870					
2			Diluent/Zero	0.0 ug/L	LMB	RW	0.869					
3			Standard2	1.0 ug/L	ICS	RW	0.401	46.1	0.9	Present	90	
4			Standard2	1.0 ug/L	ICS	RW	0.461	53.0	0.62	Present	62	
5			Control	2.0 ug/L	QCS	RW	0.328	37.7	1.5	Present	75	
6	346618	IDEM	DK12129		FS	GW	0.833	95.8	< 1.0	Absent		
7	346623	IDEM	DK12037		FS	GW	0.886	101.9	< 1.0	Absent		
8	346628	IDEM	DK12038		FS	GW	0.825	94.9	< 1.0	Absent		
9	346633	IDEM	DK12039		FS	GW	0.855	98.3	< 1.0	Absent		
10	346638	IDEM	DK12040		FS	GW	0.851	97.9	< 1.0	Absent		
11			Diluent/Zero	0.0 ug/L	LMB	RW	0.782	89.9	< 1.0	Absent		
12			Standard2	1.0 ug/L	CCC	RW	0.395	45.4	0.95	Present	95	
13			Diluent/Zero	0.0 ug/L	LMB	RW	0.797	91.7	< 1.0	Absent		
14			Standard2	1.0 ug/L	CCC	RW	0.373	42.9	1.1	Present	110	
15												
16												
17												
18												
19												
20												
21												
22												

Comments: _____

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED - GC/MS TUNING AND MASS CALIBRATION - Decafluorotriphenylphosphine (DFTPP)

Tech: AT
Date: 09/10/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A090198A
Contract:	BAA 97-044	Task:	4A	Data Directory:	AE\090198A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0507F1AE
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	525.2	Instrument ID:	GC/MS-AE

m/e	Ion Abundance Criteria	% Rel Abundance	Q
51	10 to 80% of base peak	28.60	
68	< 2% of Mass 69	0.00	
70	< 2% of Mass 69	0.00	
127	10 to 80% of base peak	31.44	
197	< 2% of Mass 198	0.00	
198	base peak or > 50 % of mass 442	100.00	
199	5 to 9% of mass 198	7.88	
275	10 to 60% of base peak	17.42	
365	> 1% of base peak	2.68	
441	Present and < mass 443	12.88	
442	base peak or > 50 % of mass 198	55.08	
443	15 to 24% of mass 442	17.60	

Tune Date: 09/01/98

Tune Time: 11:19

Hours Since Last Tune

Matrix	Code
Reagent Water	RW
Surface Water	SW
Drinking Water	DW
Ground Water	GW
Waste Water	WW
Sediment	SE
Soil	SO
Sludge	SL
Other Solvents	OS
TCLP Leachate	TC
Hazardous Waste	HW

Contamination Levels: L=Low M=Medium H=High

	Sample No. / Sample Description	Data File / Sample ID	Date Analyzed	Time Analyzed	Matrix Code	Contm Level
1	Tune 1	TI-DFN1	08/01/98	11:19	OS	
2	SPCC	S-525A	08/01/98	11:45	OS	
3	Continuing Calibration Check A	C-1-18A	08/01/98	12:29	OS	
4	Laboratory Method Blank A	MB-525A	08/01/98	13:27	RW	
5	Laboratory Fortified Blank A	FB-525A	08/01/98	14:01	RW	
6	DK 12129	346614	08/01/98	14:36	GW	L
7	DK 12037	346619	08/01/98	15:11	GW	L
8	DK 12038	346624	08/01/98	15:45	GW	L
9	DK 12039	346629	08/01/98	16:20	GW	L
10	DK 12040	346634	08/01/98	16:55	GW	L
11	Laboratory Fortified Matrix A	FM-525A	08/01/98	18:05	DW	
12	Continuing Calibration Check B	C-1-18B	08/01/98	18:40	OS	
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: _____

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED LABORATORY PERFORMANCE CHECK

Tech: AT
Date: 09/10/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A090198A
Contract:	BAA 97-044	Task:	4A	Data Directory:	AE\090198A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0507F1AE
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	525.2	Instrument ID:	GC/MS-AE
Data File:	S-525A	LPC Soln Lot #:	112597-112597		

Compound	Test	Conc. ug/ml	Requirements	Result	Pass/Fail	Q
Bromacil	Chromatographic Performance	5.0	0.80 < PGF < 1.20 (a)	0.75	Fail	*
Atrazine Prometon	Column Performance	0.15 0.30	Resolution > 0.7 (b)	0.72	Pass	
Endrin	Abundance of degradation to Endrin Aldehyde	2.0	< 10% endrin aldehyde	< 10 %	Pass	
4,4' - DDT	Abundance of degradation to 4,4' - DDD & 4,4' - DDE		< 10% 4,4'-DDD & 4,4'-DDE	< 10 %	Pass	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

(a) PGF - peak Gaussian factor. Calculated using the equation:

$$PGF = \frac{1.83 \times W(1/2)}{W(1/10)}$$

where W(1/2) is the peak width at half height and W(1/10) is the peak width at tenth height.

(b) Resolution between the two peaks as defined by the equation:

$$R = \frac{t}{w}$$

where t is the difference in elution times between the two peaks and W is the average peak width, at the baseline, of the two peaks.

Comments: * Bromacil did not the peak Gaussian factor criteria in the LPC, but this data was acceptable based on its recoveries in the LFB and the CCCs.

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED CONTINUING CALIBRATION CHECK

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A090198A
Contract: BAA 97-044 | Task: 4A | Data Directory: AE\090198A
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: 0507F1AE
Column: Restek XTI-5 30m x 0.25mm ID | Method: 525.2 | Instrument ID: GC/MS - AE
CCC Soln Lot#: Mix 1: W980505012-073098 | Mix 2: | Mix 3:
CCC Data File: C-1-18A

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acetochlor	1.0	1.050	105.0	70 - 130	Pass	
Alachlor	1.0	0.985	98.5	70 - 130	Pass	
Atrazine	1.0	1.021	102.1	70 - 130	Pass	
Bromacil	1.0	0.724	72.4	70 - 130	Pass	
Cyanazine	1.0	0.782	78.2	70 - 130	Pass	
Diazinon	1.0	1.197	119.7	70 - 130	Pass	
Endosulfan I	1.0	1.172	117.2	70 - 130	Pass	
Endosulfan II	1.0	1.053	105.3	70 - 130	Pass	
Endosulfan sulfate	1.0	1.056	105.6	70 - 130	Pass	
Fenamiphos	1.0	0.823	82.3	70 - 130	Pass	
Metolachlor	1.0	1.011	101.1	70 - 130	Pass	
Metribuzin	1.0	0.910	91.0	70 - 130	Pass	
Pendimethalin	1.0	0.987	98.7	70 - 130	Pass	
Prometon	1.0	0.985	98.5	70 - 130	Pass	
Propachlor	1.0	0.978	97.8	70 - 130	Pass	
Simazine	1.0	0.719	71.9	70 - 130	Pass	
Terbufos	1.0	1.045	104.5	70 - 130	Pass	
Trifluralin	1.0	1.020	102.0	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED METHOD BLANK SUMMARY

Tech: AT
Date: 09/10/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A090198A
Contract:	BAA 97-044	Task:	4A	Data Directory:	AE\090198A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0507F1AE
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	525.2	Instrument ID:	GC/MS - AE
Blank File:	MB-525A	Ext Date:	08/24/98	Ext Method:	Solid Phase Extraction

This method blank applies to the following samples, ms, msd, blanks, standards.

	Sample No. / Sample Description	Data File / Sample ID	Date Analyzed	Time Analyzed	Matrix Code	Contm. Level
1	Continuing Calibration Check A	C-1-18A	08/01/98	12:29	OS	
2	Laboratory Method Blank A	MB-525A	08/01/98	13:27	RW	
3	Laboratory Fortified Blank A	FB-525A	08/01/98	14:01	RW	
4	DK 12129	346614	08/01/98	14:36	GW	L
5	DK 12037	346619	08/01/98	15:11	GW	L
6	DK 12038	346624	08/01/98	15:45	GW	L
7	DK 12039	346629	08/01/98	16:20	GW	L
8	DK 12040	346634	08/01/98	16:55	GW	L
9	Laboratory Fortified Matrix A	FM-525A	08/01/98	18:05	DW	
10	Continuing Calibration Check B	C-1-18B	08/01/98	18:40	OS	
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: RW
Data File/Smpl ID: MB-525A
Data File/Dupl ID:
Sample Number/Description: Laboratory Method Blank A

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: n/a
Date Analyzed: 09/01/98
Contm. Level:

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED LABORATORY FORTIFIED BLANK

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
LFB Soln Lot#: Mix 1: W980505012-073098
LFB Data File: FB-525A

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Mix 2:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Mix 3:

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acetochlor	1.0	1.066	106.6	70 - 130	Pass	
Alachlor	1.0	1.044	104.4	70 - 130	Pass	
Atrazine	1.0	1.008	100.8	70 - 130	Pass	
Bromacil	1.0	0.712	71.2	70 - 130	Pass	
Cyanazine	1.0	0.792	79.2	70 - 130	Pass	
Diazinon	1.0	1.001	100.1	70 - 130	Pass	
Endosulfan I	1.0	1.159	115.9	70 - 130	Pass	
Endosulfan II	1.0	1.048	104.8	70 - 130	Pass	
Endosulfan sulfate	1.0	1.071	107.1	70 - 130	Pass	
Fenamiphos	1.0	0.892	89.2	70 - 130	Pass	
Metolachlor	1.0	1.027	102.7	70 - 130	Pass	
Metribuzin	1.0	0.564	56.4	70 - 130	Fail	*
Pendimethalin	1.0	0.974	97.4	70 - 130	Pass	
Prometon	1.0	0.608	60.8	70 - 130	Fail	*
Propachlor	1.0	1.045	104.5	70 - 130	Pass	
Simazine	1.0	0.559	55.9	70 - 130	Fail	^
Terbufos	1.0	1.009	100.9	70 - 130	Pass	
Trifluralin	1.0	0.993	99.3	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments: * Metribuzin and prometon are listed in Section 13.2 of EPA Method 525.2 as "Problem Compounds." Since the samples from IDEM are collected and stored under acidic conditions, low recoveries for prometon may be observed in the LFBs and LFMs due to degradation and or ionization as cited in paragraphs 13.2.5 and 13.2.8 of the method. Metribuzin has been found to breakthrough the extraction disk when co-extracted with other analytes. (Section 13.2.7).

^ Simazine recovery in the LFB was low biased outside the acceptance limits of 70-130% recovery, but this data was acceptable based on simazine recoveries in the CCCs.

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346614
Data File/Dupl ID:
Sample Number/Description: DK 12129

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: 08/19/98
Date Analyzed: 09/01/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346619
Data File/Dupl ID:
Sample Number/Description: DK 12037

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: 08/19/98
Date Analyzed: 09/01/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346624
Data File/Dupl ID:
Sample Number/Description: DK 12038

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: 08/19/98
Date Analyzed: 09/01/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346629
Data File/Dupl ID:
Sample Number/Description: DK 12039

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: 08/19/98
Date Analyzed: 09/01/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED DATA SHEET

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346634
Data File/Dupl ID:
Sample Number/Description: DK 12040

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Smpl Vol: 1000 ml
Dil. Factor: 1
Dupl Type:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Date Received: 08/19/98
Date Analyzed: 09/01/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
34256-82-1	Acetochlor	< 0.1	ug/L			
15972-60-8	Alachlor	< 0.1	ug/L			
1912-24-9	Atrazine	< 0.1	ug/L			
314-40-9	Bromacil	< 0.1	ug/L			
21725-46-2	Cyanazine	< 0.1	ug/L			
333-41-5	Diazinon	< 0.1	ug/L			
959-98-8	Endosulfan I	< 0.1	ug/L			
33213-65-9	Endosulfan II	< 0.1	ug/L			
1031-07-8	Endosulfan sulfate	< 0.1	ug/L			
22224-92-6	Fenamiphos	< 0.1	ug/L			
51218-45-2	Metolachlor	< 0.1	ug/L			
21087-64-9	Metribuzin	< 0.1	ug/L			
40487-42-1	Pendimethalin	< 0.1	ug/L			
1610-18-0	Prometon	< 0.1	ug/L			
1918-16-7	Propachlor	< 0.1	ug/L			
122-34-9	Simazine	< 0.07	ug/L			
13071-79-9	Terbufos	< 0.1	ug/L			
1582-09-8	Trifluralin	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED LABORATORY FORTIFIED MATRIX

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Lab ID: unknown
Acq. File: A090198A
Contract: BAA 97-044
Task: 4A
Data Directory: AE\090198A
Project: IDEM / Pesticide Monitoring Network
Case: n/a
Initial Cali File: 0507F1AE
Column: Restek XTI-5 30m x 0.25mm ID
Method: 515.1
Instrument ID: GC/MS - AE
LFM Soln Lot#: Mix 1: W980505012-073098
Mix 2:
Mix 3:
LFM Data File: FM-525A

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acetochlor	1.0	0.985	98.5	70 - 130	Pass	
Alachlor	1.0	0.998	99.8	70 - 130	Pass	
Atrazine	1.0	0.963	96.3	70 - 130	Pass	
Bromacil	1.0	0.836	83.6	70 - 130	Pass	
Cyanazine	1.0	0.656	65.6	70 - 130	Fail	*
Diazinon	1.0	1.178	117.8	70 - 130	Pass	
Endosulfan I	1.0	1.180	118.0	70 - 130	Pass	
Endosulfan II	1.0	1.024	102.4	70 - 130	Pass	
Endosulfan sulfate	1.0	1.271	127.1	70 - 130	Pass	
Fenamiphos	1.0	1.037	103.7	70 - 130	Pass	
Metolachlor	1.0	1.02	102.0	70 - 130	Pass	
Metribuzin	1.0	0.574	57.4	70 - 130	Fail	*
Pendimethalin	1.0	1.014	101.4	70 - 130	Pass	
Prometon	1.0	0.715	71.5	70 - 130	Pass	
Propachlor	1.0	1.017	101.7	70 - 130	Pass	
Simazine	1.0	0.924	92.4	70 - 130	Pass	
Terbufos	1.0	0.961	96.1	70 - 130	Pass	
Trifluralin	1.0	1.022	102.2	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments: * Cyanazine and metribuzin are listed in Section 13.2 of EPA Method 525.2 as "Problem Compounds." Since the samples from IDEM are collected and stored under acidic conditions, low recoveries for cyanazine may be observed in the LFBs and LFMs due to degradation and or ionization as cited in paragraphs 13.2.5 and 13.2.8 of the method. Metribuzin has been found to breakthrough the extraction disk when co-extracted with other analytes. (Section 13.2.7).

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED CONTINUING CALIBRATION CHECK

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A090198A
Contract: BAA 97-044 | Task: 4A | Data Directory: AE\090198A
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: 0507F1AE
Column: Restek XTI-5 30m x 0.25mm ID | Method: 525.2 | Instrument ID: GC/MS - AE
CCC Soln Lot#: Mix 1: W980505012-073098 | Mix 2: | Mix 3:
CCC Data File: C-1-18B

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acetochlor	1.0	0.796	79.6	70 - 130	Pass	
Alachlor	1.0	0.788	78.8	70 - 130	Pass	
Atrazine	1.0	0.771	77.1	70 - 130	Pass	
Bromacil	1.0	0.826	82.6	70 - 130	Pass	
Cyanazine	1.0	0.419	41.9	70 - 130	Fail	*
Diazinon	1.0	1.047	104.7	70 - 130	Pass	
Endosulfan I	1.0	1.068	106.8	70 - 130	Pass	
Endosulfan II	1.0	0.941	94.1	70 - 130	Pass	
Endosulfan sulfate	1.0	0.865	86.5	70 - 130	Pass	
Fenamiphos	1.0	0.762	76.2	70 - 130	Pass	
Metolachlor	1.0	0.782	78.2	70 - 130	Pass	
Metribuzin	1.0	0.719	71.9	70 - 130	Pass	
Pendimethalin	1.0	0.888	88.8	70 - 130	Pass	
Prometon	1.0	0.753	75.3	70 - 130	Pass	
Propachlor	1.0	0.722	72.2	70 - 130	Pass	
Simazine	1.0	0.820	82.0	70 - 130	Pass	
Terbufos	1.0	0.872	87.2	70 - 130	Pass	
Trifluralin	1.0	0.918	91.8	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments: * Cyanazine recovery in the second CCC was low biased due to active sites on the injector insert from previous injections. Therefore, cyanazine results in the samples are potentially low biased.

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED SURROGATE RECOVERY

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories Lab ID: unknown Acq. File: A090198A
Contract: BAA 97-044 Task: 4A Data Directory: AE\090198A
Project: IDEM / Pesticide Monitoring Network Case: n/a Initial Cali File: 0507F1AE
Column: Restek XTI-5 30m x 0.25mm ID Method: 525.2 Instrument ID: GC/MS - AE
Surrogate Soln Lot #: A70800201-072798

	EPA Sample No. / Sample Description	Data File/ Sample ID	Surrogate Percent Recovery SS1	Q	SS2	Q	SS3	Q	SS4	Q	Total Out	Matrix Code	Contm Level
1	Laboratory Method Blank A	MB-525A	100.0		84.4		96.3		107.3		0	RW	
2	Laboratory Fortified Blank A	FB-525A	101.8		95.3		102.5		108.1		0	RW	
3	DK 12129	346614	104.9		88.6		99.0		102.1		0	GW	L
4	DK 12037	346619	108.4		88.8		99.9		106.0		0	GW	L
5	DK 12038	346624	100.4		84.6		100.3		99.1		0	GW	L
6	DK 12039	346629	101.2		83.1		94.1		95.5		0	GW	L
7	DK 12040	346634	92.0		89.8		100.5		234.6	*	1	GW	L
8	Laboratory Fortified Matrix A	FM-525A	103.0		96.2		99.2		104.9		0	DW	
9													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													
23													
24													
25													
26													
27													
28													

Surrogates			Target Conc.	% Recovery Limits
SS1	=	2,4,5,6-Tetrachloro-m-xylene	5.0	70 - 130
SS2	=	4,4'-Dichlorobiphenyl	5.0	70 - 130
SS3	=	Pentachloronitrobenzene	5.0	70 - 130
SS4	=	Triphenyl Phosphate	5.0	70 - 130

% Recovery = (Calculated Concentration / Target Concentration) *100

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: * One of four surrogate standards was high biased outside the acceptance limits of 70-130% recovery due to matrix interference. This data is acceptable, however, based on the recoveries of the other three surrogate standards.

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED
INTERNAL STANDARD AREA SUMMARY

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
IS Soln Lot#: A7090314-080498

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE

	IS1 Area	IS1 RT	IS2 Area	IS2 RT
12 Hour CCC Standard	2125555	16:34		
CCC Upper Limit	2763222	17:04		
CCC Lower Limit	1487889	16:04		
Init Cali Lower Limit	1083072	16:01		

	Sample No. / Sample Description	Data File / Sample ID	IS1 Area	Q	IS1 RT	Q	IS2 Area	Q	IS2 RT	Q	Matrix Code	Contm. Level
1	Laboratory Method Blank A	MB-525A	2256055		16:32						RW	
2	Laboratory Fortified Blank A	FB-525A	2013300		16:32						RW	
3	DK 12129	346614	1917465		16:32						GW	L
4	DK 12037	346619	1769519		16:32						GW	L
5	DK 12038	346624	2273449		16:32						GW	L
6	DK 12039	346629	2022630		16:32						GW	L
7	DK 12040	346634	1683151		16:33						GW	L
8	Laboratory Fortified Matrix A	FM-525A	2355199		16:33						DW	
9	Continuing Calibration Check B	C-1-18B	2125555		16:34						OS	
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

IS1 = Pyrene-d10
IS2 = n/a

CCC Upper / Lower Limit: Area: 12 hr CCC std IS area +/- 30%; RT: 12 hr CCC std IS RT +/- 30 seconds
Init Cali Lower Limit: Area: Init Cali IS area - 50%; RT: Init Cali IS RT - 30 seconds
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: _____

PESTICIDES & INDUSTRIAL CHEMICALS EXTENDED INITIAL CALIBRATION

Tech: AT
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
IC Soln Lot#: Mix 1: W980505012-050698

Lab ID: unknown
Task: 4A
Case: n/a
Method: 525.2
Mix 2:

Acq. File: A090198A
Data Directory: AE\090198A
Initial Cali File: 0507F1AE
Instrument ID: GC/MS - AE
Mix 3:

Data File / Sample ID:	I005-18A	I-01-18A	I-05-18A	I-1-18A	I-2-18A	I-5-18A	I-10-18A	I-25-18A	I-50-18A	I-100-18A				
Concentration (ug/L):	0.05	0.1	0.5	1	2	5	10	25	50	100	Avg	%	Corr	
Compound	Rf	Rf	Rf	Rf	Rf	Rf	Rf	Rf	Rf	Rf	Rf	RSD	Coeff	Q
Acetochlor	0.376	0.165	0.216	0.231	0.257	0.282	0.288	0.283	----	----	0.262	23.6	1.0000	
Alachlor	1.968	0.788	0.875	0.948	1.017	1.140	1.133	1.120	----	----	1.124	32.5	0.9999	*
Atrazine	0.505	0.201	0.283	0.307	0.339	0.338	0.314	----	----	----	0.327	28.0	0.9992	
Bromacil	----	0.353	0.296	0.521	0.662	0.787	0.752	0.768	----	----	0.591	34.5	0.9999	*
Cyanazine	0.360	0.151	0.172	0.229	0.263	0.302	0.308	0.327	----	----	0.264	28.3	0.9997	
Diazinon	----	0.965	0.820	0.755	0.848	0.801	0.758	----	----	----	0.824	9.4	0.9994	
Endosulfan I	0.493	0.179	0.180	0.215	0.196	0.227	0.215	0.208	----	----	0.239	43.5	0.9998	*
Endosulfan II	----	0.185	0.212	0.254	0.223	0.255	0.244	0.246	----	----	0.231	11.3	0.9999	
Endosulfan sulfate	0.406	0.172	0.149	0.183	0.177	0.205	0.193	0.187	----	----	0.209	38.9	0.9997	*
Fenamiphos	0.557	0.243	0.303	0.445	0.526	0.617	0.619	0.620	----	----	0.491	30.1	0.9999	*
Metolachlor	2.985	1.293	1.729	2.013	2.169	2.338	2.305	2.167	----	----	2.125	23.1	0.9996	
Metribuzin	0.658	0.299	0.344	0.416	0.489	0.539	0.538	0.546	----	----	0.479	24.7	1.0000	
Pendimethalin	0.588	0.340	0.369	0.419	0.448	0.470	0.466	0.460	----	----	0.445	16.8	1.0000	
Prometon	----	0.485	0.671	0.683	0.807	0.819	0.741	----	----	----	0.701	17.4	0.9984	
Propachlor	0.941	0.435	0.507	0.574	0.608	0.675	0.650	0.677	----	----	0.633	23.7	0.9999	
Simazine	0.396	0.149	0.148	0.181	0.233	0.236	0.241	0.233	----	----	0.227	34.7	0.9998	*
Terbufos	----	0.921	0.931	1.034	1.078	1.187	1.184	1.251	----	----	1.084	12.0	0.9998	
Trifluralin	1.058	0.697	0.709	0.772	0.788	0.956	0.911	1.044	----	----	0.867	16.7	0.9988	

Avg RF = Average response factor
Max %RSD = 30% for a linear fit
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments:

DETERMINATION OF METHOD DETECTION LIMITS
METHOD 525.2 Extended - BROAD SPECTRUM PESTICIDES

Tech: RD
Date: 05/02/98

Lab Name:	Environmental Health Laboratories	Lab ID:	Unknown	Acq. File:	A032598A
Contract:	n/a	Task:	n/a	Data Directory:	AE\032598A
Project:	Routine MDL	Case :	n/a	Initial Cali Data:	0220F0AE
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	525.2C	Instrument ID:	GC/MS - AE
Matrix Code:	RW				

			Data File*	M-01-01A	M-01-01B	M-01-01C	M-01-01D	M-01-01E	M-01-01F	M-01-01G			
			Analysis Date	03/25/98	03/25/98	03/26/98	03/26/98	03/27/98	03/27/98	03/27/98			
				Observed Recovery							Std.	Calc.	
Method	CAS #	Parameter	Target	Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep -5	Rep - 6	Rep - 7	Deviation	MDL	Units
525.2	34256-82-1	Acetochlor	0.1	0.097	0.111	0.096	0.086	0.103	0.104	0.099	0.0078	0.025	ug/L
525.2	15972-60-8	Alachlor	0.1	0.124	0.119	0.128	0.120	0.129	0.121	0.127	0.0041	0.013	ug/L
525.2	1912-24-9	Atrazine	0.1	0.101	0.098	0.110	0.097	0.101	0.105	0.103	0.0044	0.014	ug/L
525.2	314-40-9	Bromacil	0.1	0.216	0.223	0.208	0.211	0.205	0.222	0.216	0.0068	0.021	ug/L
525.2	21725-46-2	Cyanazine	0.1	0.108	0.121	0.096	0.109	0.108	0.110	0.109	0.0073	0.023	ug/L
525.2	333-41-5	Diazinon	0.1	0.289	0.278	0.283	0.286	0.282	0.265	0.252	0.0133	0.042	ug/L
525.2	959-98-8	Endosulfan I	0.1	0.142	0.142	0.123	0.140	0.129	0.130	0.130	0.0075	0.024	ug/L
525.2	33213-65-9	Endosulfan II	0.1	0.104	0.119	0.090	0.129	0.086	0.100	0.094	0.0157	0.049	ug/L
525.2	1031-07-8	Endosulfan Sulfate	0.1	0.096	0.097	0.095	0.110	0.099	0.092	0.128	0.0126	0.040	ug/L
525.2	22224-92-6	Fenamiphos	0.1	0.108	0.118	0.129	0.122	0.127	0.116	0.118	0.0071	0.022	ug/L
525.2	51218-45-2	Metolachlor	0.1	0.122	0.118	0.125	0.122	0.120	0.126	0.126	0.0031	0.010	ug/L
525.2	21087-64-9	Metribuzin	0.1	0.093	0.091	0.096	0.091	0.099	0.095	0.093	0.0029	0.009	ug/L
525.2	40487-42-1	Pendimethalin	0.1	0.095	0.099	0.096	0.102	0.103	0.096	0.094	0.0035	0.011	ug/L
525.2	1610-18-0	Prometon	0.1	0.084	0.069	0.068	0.070	0.057	0.046	0.066	0.0118	0.037	ug/L
525.2	1918-16-7	Propachlor	0.1	0.119	0.106	0.119	0.103	0.117	0.119	0.119	0.0070	0.022	ug/L
525.2	122-34-9	Simazine	0.1	0.122	0.113	0.103	0.096	0.102	0.109	0.111	0.0085	0.027	ug/L
525.2	13071-79-9	Terbufos	0.1	0.117	0.103	0.128	0.097	0.132	0.126	0.126	0.0135	0.042	ug/L
525.2	1582-09-8	Trifluralin	0.1	0.139	0.138	0.140	0.129	0.134	0.143	0.145	0.0054	0.017	ug/L

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments

CHLORINATED ACID PESTICIDES - GC/MS TUNING AND MASS CALIBRATION - Decafluorotriphenylphosphine (DFTPP)

Tech: CW
Date: 08/27/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A082698A
Contract:	BAA 97-044	Task:	4A	Data Directory:	N\082698A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0807F0N
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	515.1	Instrument ID:	GC/MS-N

m/e	Ion Abundance Criteria	% Rel Abundance	Q
51	10 to 80% of base peak	37.62	
68	< 2% of Mass 69	0.00	
70	< 2% of Mass 69	0.00	
127	10 to 80% of base peak	32.54	
197	< 2% of Mass 198	0.00	
198	base peak or > 50 % of mass 442	100.00	
199	5 to 9% of mass 198	8.70	
275	10 to 60% of base peak	22.46	
365	> 1% of base peak	3.82	
441	Present and < mass 443	14.05	
442	base peak or > 50 % of mass 198	67.52	
443	15 to 24% of mass 442	19.90	

Tune Date: 08/26/98

Tune Time: 12:26

Hours Since Last Tune

Matrix	Code
Reagent Water	RW
Surface Water	SW
Drinking Water	DW
Ground Water	GW
Waste Water	WW
Sediment	SE
Soil	SO
Sludge	SL
Other Solvents	OS
TCLP Leachate	TC
Hazardous Waste	HW

Contamination Levels: L=Low M=Medium H=High

	Sample No. / Sample Description	Data File / Sample ID	Date Analyzed	Time Analyzed	Matrix Code	Contm. Level
1	Tune1	TI-DFN1	08/26/98	12:26	OS	
2	SPCC	S-515A	08/26/98	12:47	OS	
3	Continuing Calibration Check A	C-5-06A	08/26/98	13:10	OS	
4	Laboratory Method Blank A	MB-515A	08/26/98	13:54	RW	
5	Laboratory Fortified Blank A	FB-515A	08/26/98	14:17	RW	
6	DK 12129	346615	08/26/98	21:00	GW	L
7	QCS A	Q-515A	08/26/98	21:23	RW	
8	Continuing Calibration Check B	C-1-06B	08/26/98	21:45	OS	
9						
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Q = A flag or qualifier indicating possible cause for an out of ra

Comments: _____

CHLORINATED ACID PESTICIDES
LABORATORY PERFORMANCE CHECK

Tech: CW
Date: 08/27/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A082698A
Contract:	BAA 97-044	Task:	4A	Data Directory:	N\082698A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0807F0N
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	515.1	Instrument ID:	GC/MS-N
Data File:	S-515A	LPC Soln Lot #:	021798-021798		

Compound	Test	Conc. ug/ml	Requirements	Result	Pass/Fail	Q
Dinoseb	Sensitivity	0.05	Detection of analyte: S/N > 3	5.0	Pass	
4 - Nitrophenol	Chromatographic Performance	5.00	0.70 < PGF < 1.05 (a)	0.70	Pass	
4 - Nitrophenol 3,5-Dichlorobenzoic acid	Column Performance	0.15 0.30	Resolution > 0.40 (b)	0.63	Pass	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

(a) PGF - peak Gaussian factor. Calculated using the equation:

$$PGF = \frac{1.83 \times W(1/2)}{W(1/10)}$$

where W(1/2) is the peak width at half height and W(1/10) is the peak width at tenth height.

(b) Resolution between the two peaks as defined by the equation:

$$R = \frac{t}{w}$$

where t is the difference in elution times between the two peaks and W is the average peak width, at the baseline, of the two peaks.

Comments: _____

CHLORINATED ACID PESTICIDES
CONTINUING CALIBRATION CHECK

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A082698A
Contract: BAA 97-044 | Task: 4A | Data Directory: N\082698A
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: 0807F0N
Column: Restek XTI-5 30m x 0.25mm ID | Method: 515.1 | Instrument ID: GC/MS - N
CCC Soln Lot#: Mix 1: P8129C-082498 | Mix 2: | Mix 3:
CCC Data File: C-5-06A

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acifluorfen	5.0	5.327	106.5	70 - 130	Pass	
Bentazon	5.0	4.659	93.2	70 - 130	Pass	
2,4-D	5.0	4.668	93.4	70 - 130	Pass	
2,4-DB	5.0	5.499	110.0	70 - 130	Pass	
Dicamba	5.0	5.538	110.8	70 - 130	Pass	
MCPA	5.0	4.286	85.7	70 - 130	Pass	
Mecoprop	5.0	4.310	86.2	70 - 130	Pass	
Picloram	5.0	4.864	97.3	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES
METHOD BLANK SUMMARY

Tech: CW
Date: 08/27/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A082698A
Contract:	BAA 97-044	Task:	4A	Data Directory:	N\082698A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0807F0N
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	515.1	Instrument ID:	GC/MS - N
Blank File:	MB-515A	Ext Date:	08/24/98	Ext Method:	Solid Phase Extraction

This method blank applies to the following samples, ms, msd, blanks, standards.

	Sample No. / Sample Description	Data File / Sample ID	Date Analyzed	Time Analyzed	Matrix Code	Contm. Level
1	Continuing Calibration Check A	C-5-06A	08/26/98	13:10	OS	
2	Laboratory Method Blank A	MB-515A	08/26/98	13:54	RW	
3	Laboratory Fortified Blank A	FB-515A	08/26/98	14:17	RW	
4	DK 12129	346615	08/26/98	21:00	GW	L
5	QCS A	Q-515A	08/26/98	21:23	RW	
6	Continuing Calibration Check B	C-1-06B	08/26/98	21:45	OS	
7						
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Comments: _____

CHLORINATED ACID PESTICIDES DATA SHEET

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: RW
Data File/Smpl ID: MB-515A
Data File/Dupl ID:
Sample Number/Description: Laboratory Method Blank A

Lab ID: unknown
Task: 4A
Case: n/a
Method: 515.1
Smpl Vol: 500 ml
Dil. Factor: 2
Dupl Type:

Acq. File: A082698A
Data Directory: N\082698A
Initial Cali File: 0807F0N
Instrument ID: GC/MS - N
Date Received: n/a
Date Analyzed: 08/26/98
Contm. Level:

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
50594-66-6	Acifluorfen	< 0.1	ug/L			
25057-89-0	Bentazon	< 0.1	ug/L			
94-75-7	2,4-D	< 0.1	ug/L			
94-82-6	2,4-DB	< 0.1	ug/L			
1918-00-9	Dicamba	< 0.1	ug/L			
94-74-6	MCPA	< 0.1	ug/L			
7085-19-0	Mecoprop	< 0.1	ug/L			
1918-02-1	Picloram	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES
LABORATORY FORTIFIED BLANK

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories
Lab ID: unknown
Acq. File: A082698A
Contract: BAA 97-044
Task: 4A
Data Directory: N\082698A
Project: IDEM / Pesticide Monitoring Network
Case: n/a
Initial Cali File: 0807F0N
Column: Restek XTI-5 30m x 0.25mm ID
Method: 515.1
Instrument ID: GC/MS - N
LFB Soln Lot#: Mix 1: P8129C-082498
Mix 2:
Mix 3:
LFB Data File: FB-515A

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acifluorfen	10.0	8.944	89.4	70 - 130	Pass	
Bentazon	10.0	7.445	74.5	70 - 130	Pass	
2,4-D	10.0	9.006	90.1	70 - 130	Pass	
2,4-DB	10.0	7.896	79.0	70 - 130	Pass	
Dicamba	10.0	10.203	102.0	70 - 130	Pass	
MCPA	10.0	8.067	80.7	70 - 130	Pass	
Mecoprop	10.0	7.864	78.6	70 - 130	Pass	
Picloram	10.0	8.266	82.7	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES DATA SHEET

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
Matrix Code: GW
Data File/Smpl ID: 346615
Data File/Dupl ID:
Sample Number/Description: DK 12129

Lab ID: unknown
Task: 4A
Case: n/a
Method: 515.1
Smpl Vol: 500 ml
Dil. Factor: 2
Dupl Type:

Acq. File: A082698A
Data Directory: N\082698A
Initial Cali File: 0807F0N
Instrument ID: GC/MS - N
Date Received: 08/19/98
Date Analyzed: 08/26/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
50594-66-6	Acifluorfen	< 0.1	ug/L			
25057-89-0	Bentazon	< 0.1	ug/L			
94-75-7	2,4-D	< 0.1	ug/L			
94-82-6	2,4-DB	< 0.1	ug/L			
1918-00-9	Dicamba	< 0.1	ug/L			
94-74-6	MCPA	< 0.1	ug/L			
7085-19-0	Mecoprop	< 0.1	ug/L			
1918-02-1	Picloram	< 0.1	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES
QUALITY CONTROL SAMPLE

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A082698A
Contract: BAA 97-044 | Task: 4A | Data Directory: N\082698A
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: 0807F0N
Column: Restek XTI-5 30m x 0.25mm ID | Method: 515.1 | Instrument ID: GC/MS - N
QCS Soln Lot#: Mix 1: Q1207-080498 | Mix 2: | Mix 3:
QCS Data File: Q-515A

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acifluorfen	2.0	1.512	75.6	70 - 130	Pass	
Bentazon	2.0	1.502	75.1	70 - 130	Pass	
2,4-D	2.0	1.907	95.4	70 - 130	Pass	
2,4-DB	2.0	1.625	81.3	70 - 130	Pass	
Dicamba	2.0	1.582	79.1	70 - 130	Pass	
MCPA	2.0	1.465	73.3	70 - 130	Pass	
Mecoprop	2.0	1.797	89.9	70 - 130	Pass	
Picloram	2.0	1.429	71.5	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES
CONTINUING CALIBRATION CHECK

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories
Lab ID: unknown
Acq. File: A082698A
Contract: BAA 97-044
Task: 4A
Data Directory: N\082698A
Project: IDEM / Pesticide Monitoring Network
Case: n/a
Initial Cali File: 0807F0N
Column: Restek XTI-5 30m x 0.25mm ID
Method: 515.1
Instrument ID: GC/MS - N
CCC Soln Lot#: Mix 1: P8129C-082498
Mix 2:
Mix 3:
CCC Data File: C-1-06B

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Acifluorfen	1.0	0.992	99.2	70 - 130	Pass	
Bentazon	1.0	1.042	104.2	70 - 130	Pass	
2,4-D	1.0	0.911	91.1	70 - 130	Pass	
2,4-DB	1.0	0.944	94.4	70 - 130	Pass	
Dicamba	1.0	0.984	98.4	70 - 130	Pass	
MCPA	1.0	0.899	89.9	70 - 130	Pass	
Mecoprop	1.0	0.959	95.9	70 - 130	Pass	
Picloram	1.0	0.957	95.7	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CHLORINATED ACID PESTICIDES
SURROGATE RECOVERY

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A082698A
Contract: BAA 97-044 | Task: 4A | Data Directory: N\082698A
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: 0807F0N
Column: Restek XTI-5 30m x 0.25mm ID | Method: 515.1 | Instrument ID: GC/MS - N
Surrogate Soln Lot #: A7120222-081998

	EPA Sample No. / Sample Description	Data File/ Sample ID	Surrogate Percent Recovery SS1	Q	SS2	Q	SS3	Q	Total Out	Matrix Code	Contm. Level
1	Laboratory Method Blank A	MB-515A	91.2						0	RW	
2	Laboratory Fortified Blank A	FB-515A	86.0						0	RW	
3	DK 12129	346615	89.7						0	GW	L
4	QCS A	Q-515A	77.6						0	RW	
5											
6											
7											
8											
9											
10											
11											
12											
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23											
24											
25											
26											
27											
28											

Surrogates			Target Conc.	% Recovery Limits
SS1	=	2,4-Dichlorophenylacetic Acid	10.0	70 - 130
SS2	=	n/a		
SS3	=	n/a		

% Recovery = (Calculated Concentration / Target Concentration) *100
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: _____

CHLORINATED ACID PESTICIDES
INTERNAL STANDARD AREA SUMMARY

Tech: CW
Date: 08/27/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A082698A
Contract:	BAA 97-044	Task:	4A	Data Directory:	N\082698A
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	0807F0N
Column:	Restek XTI-5 30m x 0.25mm ID	Method:	515.1	Instrument ID:	GC/MS - N
IS Soln Lot#:	A7090334-082198				

	IS1 Area	IS1 RT	IS2 Area	IS2 RT
12 Hour CCC Standard	26141	8:47		
CCC Upper Limit	33983	9:17		
CCC Lower Limit	18299	8:17		

	Sample No. / Sample Description	Data File / Sample ID	IS1 Area	Q	IS1 RT	Q	IS2 Area	Q	IS2 RT	Q	Matrix Code	Contm. Level
1	Laboratory Method Blank A	MB-515A	27256		8:47						RW	
2	Laboratory Fortified Blank A	FB-515A	26641		8:48						RW	
3	DK 12129	346615	28855		8:47						GW	L
4	QCS A	Q-515A	28289		8:46						RW	
5	Continuing Calibration Check B	C-1-06B	27631		8:47						OS	
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

IS1 = 4,4'-Dibromooctafluorobiphenyl
IS2 = n/a

CCC Upper / Lower Limit: Area: CCC std IS area +/- 30%; RT: CCC std IS RT +/- 30 seconds
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: _____

_____

_____

CHLORINATED ACID PESTICIDES
INITIAL CALIBRATION

Tech: CW
Date: 08/27/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Restek XTI-5 30m x 0.25mm ID
IC Soln Lot#: Mix 1: P7038C-080498

Lab ID: unknown
Task: 4A
Case: n/a
Method: 515.1
Mix 2:

Acq. File: A082698A
Data Directory: N\082698A
Initial Cali File: 0807F0N
Instrument ID: GC/MS-N
Mix 3:

Data File / Sample ID:	I-01-06A	I-05-06A	I-1-06A	I-2-06A	I-5-06A	I-10-06A	I-25-06A				
Concentration:	0.1 ug/L	0.5 ug/L	1 ug/L	2 ug/L	5 ug/L	10 ug/L	25 ug/L	Avg	%	Corr	
Compound	Rf	Rf	Rf	Rf	Rf	Rf	Rf	Rf	RSD	Coeff	Q
Acifluorfen	3.041	2.542	3.253	2.874	2.895	2.609	2.528	2.820	9.7	1.000	
Bentazon	8.833	10.808	10.194	10.951	10.243	----	----	10.206	8.2	1.000	
2,4-D	2.958	3.808	3.698	3.975	4.088	3.779	4.349	3.808	11.4	0.999	
2,4-DB	6.406	8.482	7.305	8.495	7.851	6.882	8.092	7.645	10.5	0.998	
Dicamba	6.095	6.735	5.984	6.506	6.299	4.875	5.468	5.995	10.6	0.998	
MCPA	2.045	2.484	2.459	2.482	2.890	2.670	3.014	2.578	12.4	0.999	
Mecoprop	1.320	1.903	1.796	2.143	2.366	2.486	3.239	2.179	27.9	0.996	*
Picloram	3.067	5.311	5.225	5.763	5.417	----	----	4.957	21.7	0.999	*

Avg RF = Average response factor
Max %RSD = 20% for a linear fit
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments:

DETERMINATION OF METHOD DETECTION LIMITS
METHOD 515.1 - CHLORINATED ACID PESTICIDES

Tech: CAW
Date: 01/07/98

Lab Name:	Environmental Health Laboratories	Extract. Vol:	500 mL	Acq. File:	A010798A
Project:	Routine MDL	Disk:	47 mm	Data Directory:	N\010798A
Column:	Restek XTI-5 30m x 0.25um ID	Cartridge:	NA	Initial Cali Data:	1231E0N
Extraction Technique:	LSE	Method:	515.1	Instrument ID:	GC/MS - N
Matrix Code:	RW	LSE Matrix:	RPS	Extraction Tech:	JH

	Data File	M-02-06A	M-02-06B	M-02-06C	M-02-06D	M-02-06E	M-02-06F	M-02-06G			
	Analysis Date	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98	01/07/98			
				Observed Recovery (ug/L)							
Method	CAS #	Parameter	Target	Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep -5	Rep - 6	Rep - 7	Std. Deviation	Calc. MDL	Units
515.1	50594-66-6	Acifluorfen	0.2	0.279	0.265	0.249	0.290	0.248	0.268	0.265	0.015	0.047	ug/L
515.1	25057-89-0	Bentazone	0.2	0.156	0.162	0.183	0.168	0.175	0.181	0.166	0.010	0.031	ug/L
515.1	94-75-7	2,4-D	0.2	0.242	0.205	0.277	0.219	0.260	0.210	0.244	0.027	0.084	ug/L
515.1	94-82-6	2,4-DB	0.2	0.359	0.346	0.377	0.360	0.348	0.350	0.347	0.011	0.035	ug/L
515.1	1918-00-9	Dicamba	0.2	0.296	0.289	0.290	0.298	0.281	0.273	0.290	0.009	0.027	ug/L
515.1	94-74-6	MCPA	0.2	0.452	0.446	0.447	0.461	0.441	0.452	0.462	0.008	0.024	ug/L
515.1	7085-19-0	MCPP (Mecoprop)	0.2	0.525	0.523	0.527	0.533	0.522	0.529	0.531	0.004	0.013	ug/L
515.1	1918-02-1	Picloram	0.2	0.238	0.241	0.228	0.238	0.251	0.228	0.240	0.008	0.025	ug/L

Q = A flag or qualifier indicating possible cause for an out of range or failed result.
LSE = Liquid / solid extraction; LLE = Liquid / Liquid extraction

LSE Matrix = C8, C18, SDVB, Biorex-5, AG-1X-8, RPS

Comments:

CARBAMATE PESTICIDES
METHOD BLANK SUMMARY

Tech: CM
Date: 09/10/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A090598
Contract:	BAA 97-044	Task:	4A	Data Directory:	Q\A090598
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	Q\A090598
Column:	Supelcosil LC-18-DB 15cm x 4.6mm	Method:	531.1	Instrument ID:	HPLC - Q
Blank File:	Q0905010	Ext Date:	09/05/98	Ext Method:	Filtration

This method blank applies to the following samples, ms, msd, blanks, standards.

	Sample No. / Sample Description	Data File / Sample ID	Date Analyzed	Time Analyzed	Matrix Code	Contm. Level
1	Laboratory Performance Check	Q0905002	09/05/98	15:28	RW	
2	Continuing Calibration Check	Q0905008	09/05/98	19:06	RW	
3	Laboratory Fortified Blank	Q0905009	09/05/98	19:42	RW	
4	Laboratory Method Blank	Q0905010	09/05/98	20:19	RW	
5	DK 12129 / EHL 346616	Q0905011	09/05/98	20:55	GW	L
6	Quality Control Sample	Q0905040	09/06/98	14:28	RW	
7						
8						
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23						
24						

Comments: _____

CARBAMATE PESTICIDES
LABORATORY PERFORMANCE CHECK

Tech: CM
Date: 09/10/98

Lab Name:	Environmental Health Laboratories	Lab ID:	unknown	Acq. File:	A090598
Contract:	BAA 97-044	Task:	4A	Data Directory:	Q\A090598
Project:	IDEM / Pesticide Monitoring Network	Case:	n/a	Initial Cali File:	Q\A090598
Column:	Supelcosil LC-18-DB 15cm x 4.6mm ID	Method:	531.1	Instrument ID:	HPLC - Q
Data File:	Q0905002	LPC Soln Lot #:	H-0149-072798		

Compound	Test	Conc. ug/ml	Requirements	Result	Pass/Fail	Q
3-Hydroxycarbofuran	Sensitivity	2.0	Detection of analyte: S/N > 3	> 3	Pass	
Aldicarb Sulfoxide	Chromatographic Performance	100	0.90 < PGF < 1.10 (a)	0.939	Pass	
Methiocarb 4-Bromo-3,5-dimethyl phenyl N-methylcarbamate	Column Performance	20 10	Resolution > 1.0 (b)	1.15	Pass	

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

(a) PGF - peak Gaussian factor. Calculated using the equation:

$$PGF = \frac{1.83 \times W(1/2)}{W(1/10)}$$

where W(1/2) is the peak width at half height and W(1/10) is the peak width at tenth height.

(b) Resolution between the two peaks as defined by the equation:

$$R = \frac{t}{w}$$

where t is the difference in elution times between the two peaks and W is the average peak width, at the baseline, of the two peaks.

Comments: _____

CARBAMATE PESTICIDES
CONTINUING CALIBRATION CHECK

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A090598
Contract: BAA 97-044 | Task: 4A | Data Directory: Q\A090598
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: Q\A090598
Column: Supelcosil LC-18-DB 15cm x 4.6mm | Method: 531.1 | Instrument ID: HPLC - Q
CCC Soln Lot#: Mix 1: L-0804-090598 | Mix 2: | Mix 3:
CCC Data File: Q0905008

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptamce Limits	P / F	Q
Aldicarb	1.0	1.017	101.7	80 - 120	Pass	
Carbofuran	1.0	1.095	109.5	80 - 120	Pass	
Methiocarb	1.0	1.191	119.1	80 - 120	Pass	
Methomyl	1.0	1.078	107.8	80 - 120	Pass	
Oxamyl	1.0	1.063	106.3	80 - 120	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CARBAMATE PESTICIDES
LABORATORY FORTIFIED BLANK

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories | Lab ID: unknown | Acq. File: A090598
Contract: BAA 97-044 | Task: 4A | Data Directory: Q\A090598
Project: IDEM / Pesticide Monitoring Network | Case: n/a | Initial Cali File: Q\A090598
Column: Supelcosil LC-18-DB 15cm x 4.6mm | Method: 531.1 | Instrument ID: HPLC - Q
LFB Soln Lot#: Mix 1: L-0804-090598 | Mix 2: | Mix 3:
LFB Data File: Q0905009

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Aldicarb	10.0	10.297	103.0	70 - 130	Pass	
Carbofuran	10.0	11.332	113.3	70 - 130	Pass	
Methiocarb	10.0	11.245	112.4	70 - 130	Pass	
Methomyl	10.0	11.385	113.9	70 - 130	Pass	
Oxamyl	10.0	11.445	114.4	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CARBAMATE PESTICIDES DATA SHEET

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Supelcosil LC-18-DB 15cm x 4.6mm I
Matrix Code: RW
Data File/Smpl ID: Q0905010
Data File/Dupl ID:
Sample Number/Description: Laboratory Method Blank

Lab ID: unknown
Task: 4A
Case: n/a
Method: 531.1
Smpl Vol: 500 ul
Dil. Factor: 1
Dupl Type:

Acq. File: A090598
Data Directory: Q\A090598
Initial Cali File: Q\A090598
Instrument ID: HPLC - Q
Date Received: n/a
Date Analyzed: 09/05/98
Contm. Level:

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
116-06-3	Aldicarb	< 0.5	ug/L			
1563-66-2	Carbofuran	< 0.9	ug/L			
2032-65-7	Methiocarb	< 1.0	ug/L			
16752-77-5	Methomyl	< 0.5	ug/L			
23135-22-0	Oxamyl	< 1.0	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CARBAMATE PESTICIDES DATA SHEET

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Supelcosil LC-18-DB 15cm x 4.6mm I
Matrix Code: GW
Data File/Smpl ID: Q0905011
Data File/Dupl ID:
Sample Number/Description: DK 12129 / EHL 346616

Lab ID: unknown
Task: 4A
Case: n/a
Method: 531.1
Smpl Vol: 500 ul
Dil. Factor: 1
Dupl Type:

Acq. File: A090598
Data Directory: Q\A090598
Initial Cali File: Q\A090598
Instrument ID: HPLC - Q
Date Received: 08/19/98
Date Analyzed: 09/05/98
Contm. Level: L

CAS Number	Compound	Sample Concentration	Units	Duplicate Concentration	Units	Q
116-06-3	Aldicarb	< 0.5	ug/L			
1563-66-2	Carbofuran	< 0.9	ug/L			
2032-65-7	Methiocarb	< 1.0	ug/L			
16752-77-5	Methomyl	< 0.5	ug/L			
23135-22-0	Oxamyl	< 1.0	ug/L			

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CARBAMATE PESTICIDES
QUALITY CONTROL SAMPLE

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Lab ID: unknown
Acq. File: A090598
Contract: BAA 97-044
Task: 4A
Data Directory: Q\A090598
Project: IDEM / Pesticide Monitoring Network
Case: n/a
Initial Cali File: Q\A090598
Column: Supelcosil LC-18-DB 15cm x 4.6mm
Method: 531.1
Instrument ID: HPLC - Q
QCS Soln Lot#: Mix 1: 076-319-121097
Mix 2:
Mix 3:
QCS Data File: Q0905040

All concentrations are in ug/L

Compound	Target Conc	Observed Conc	Percent Recovery	Acceptance Limits	P / F	Q
Aldicarb	10.0	8.110	81.1	70 - 130	Pass	
Carbofuran	10.0	9.622	96.2	70 - 130	Pass	
Methiocarb	10.0	9.311	93.1	70 - 130	Pass	
Methomyl	10.0	9.160	91.6	70 - 130	Pass	
Oxamyl	10.0	9.034	90.3	70 - 130	Pass	

Q = A flag or qualifier indicating possible cause(s) for an out of range or failed result.

Comments:

CARBAMATE PESTICIDES
INTERNAL STANDARD AREA SUMMARY

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories
Contract: BAA 97-044
Project: IDEM / Pesticide Monitoring Network
Column: Supelcosil LC-18-DB 15cm x 4.6mm ID
IS Soln Lot#: M-0200-090598

Lab ID: unknown
Task: 4A
Case: n/a
Method: 531.1

Acq. File: A090598
Data Directory: Q\A090598
Initial Cali File: Q\A090598
Instrument ID: HPLC - Q

	IS1 Area	IS1 RT	IS2 Area	IS2 RT
12 Hour CCC Standard	241756	26:06		
CCC Upper Limit	314283	26:36		
CCC Lower Limit	169229	25:36		

	Sample No. / Sample Description	Data File / Sample ID	IS1 Area	Q	IS1 RT	Q	IS2 Area	Q	IS2 RT	Q	Matrix Code	Contm Level
1	Laboratory Fortified Blank	Q0905009	238080		26:07						RW	
2	Laboratory Method Blank	Q0905010	247521		26:06						RW	
3	DK 12129 / EHL 346616	Q0905011	257218		26:07						GW	L
4	Quality Control Sample	Q0905040	243453		26:04						RW	
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												

IS1 = 4-Bromo-3,5-dimethylphenyl n-methylcarbamate
IS2 = n/a

CCC Upper / Lower Limit: Area: CCC std IS area +/- 30%; RT: CCC std IS RT +/- 30 seconds
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments: _____

CARBAMATE PESTICIDES
INITIAL CALIBRATION

Tech: CM
Date: 09/10/98

Lab Name: Environmental Health Laboratories Lab ID: unknown Acq. File: A090598
Contract: BAA 95 - 22 Task: 4A Data Directory: Q\A090598
Project: IDEM / Pesticide Monitoring Network Case: n/a Initial Cali File: Q\A090598
Column: Supelcosil LC-18-DB 15cm x 4.6mm Method: 531.1 Instrument ID: HPLC - Q
IC Soln Lot#: Mix 1: L-0804-090598 Mix 2: Mix 3:

Data File / Sample ID:	Q0905003	Q0905004	Q0905005	Q0905006	Q0905007					
Concentration:	1.0 ug/L	2.0 ug/L	5.0 ug/L	10 ug/L	25 ug/L			Avg	%	
Compound	Rf	Rf	Rf	Rf	Rf			Rf	RSD	Q
Aldicarb	0.269	0.273	0.339	0.331	0.339			0.310	11.6	
Carbofuran	0.384	0.443	0.467	0.471	0.479			0.449	8.6	
Methiocarb	0.686	0.768	0.878	0.851	0.846			0.806	9.7	
Methomyl	0.190	0.193	0.246	0.243	0.242			0.223	12.9	
Oxamyl	0.287	0.309	0.382	0.372	0.373			0.345	12.6	

Avg RF = Average result factor
Max %RSD = 20%
Q = A flag or qualifier indicating possible cause for an out of range or failed result.

Comments:

DETERMINATION OF METHOD DETECTION LIMITS
METHOD 531.1- CARBAMATES

Tech: TML
Date: 10/25/97

Lab Name: Environmental Health Laboratories
Project: Routine MDL
Column: Supelco C-18DB 150 x 4.6 mm
Extraction Technique: Filtration
Matrix Code: RW

Extract.Vol: n/a
Disk: n/a
Cartridge: n/a
Method: 531.1
LSE Matrix: n/a

Acq. File: Q\A101697 Q\A101997 Q\A102497
Data Directory: A101697 A101997 A102497
Initial Cali Data: Q\A101597
Instrument ID: HLPC-Q
Extraction Technician: TML

			Data File	Q1016028	Q1016029	Q1016030	Q1021033	Q1021034	Q1021035	Q1024037		
			Analysis Date	10/17/97	10/17/97	10/17/97	10/22/97	10/22/97	10/22/97	10/24/97		
			Target	Observed Recovery							Std.	Calc.	
Method	CAS #	Parameter	Conc. (ug/L)	Rep - 1	Rep - 2	Rep - 3	Rep - 4	Rep - 5	Rep - 6	Rep - 7	Deviation	MDL	Units
531.1	116-06-3	Aldicarb	1.00	0.841	0.821	0.736	0.924	0.976	0.973	0.841	0.088	0.278	ug/L
531.1	1563-66-2	Carbofuran	1.00	1.050	0.830	1.056	0.981	0.865	0.936	0.983	0.086	0.272	ug/L
531.1	2032-65-7	Methiocarb	1.00	1.108	0.977	1.085	1.075	1.084	1.047	0.996	0.049	0.154	ug/L
531.1	16752-77-5	Methomyl	1.00	1.115	0.969	0.972	1.078	0.965	1.037	0.946	0.065	0.205	ug/L
531.1	23135-22-0	Oxamyl	1.00	0.891	0.936	0.830	0.848	0.967	0.955	0.871	0.0538	0.169	ug/L

Q = A flag or qualifier indicating possible cause for an out of range or failed result.

LSE = Liquid / solid extraction; LLE = Liquid / Liquid extraction
LSE Matrix = C8, C18, SDVB, Biorex-5, AG-1X-8

COMMENTS: